

## Upper East Fork Poplar Creek Building 81-10 Area

**Scope:** The Building 81-10 Area project will remediate contaminated soils at a former mercury recovery and storage site which is located in the Upper East Fork Poplar Creek (UEFPC) watershed at the Y-12 National Security Complex (Y-12). The project objective is to design and implement excavation of mercury contaminated soils in the Building 81-10 area. Using the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process, the project will:

- Conduct a treatability study [as specified in the UEFPC Phase I Record of Decision (ROD)<sup>1</sup>] to evaluate the effectiveness of an alternate technology, in-situ grouting, to mobilize mercury contamination in place, which has the potential to significantly reduce remediation costs;
- Prepare a focused feasibility study (FFS) and ROD amendment to determine the appropriate remediation method and add the selected remedy to the UEFPC Phase I ROD; and
- Excavate, treat, and dispose mercury-contaminated soils (the anticipated selected remedy).

Spills and leaks occurred during past mercury recovery and storage operations in the Building 81-10 area. Building 81-10 has been demolished. The building slab and mercury contaminated soil remain. The Building 81-10 Area project is planned for implementation by the Integrated Facility Disposition Program (IFDP) at an estimated cost of \$71 M.

### **Environmental Risk and Principal Threat Source Material Rating: Medium**

Soil sampling has identified extensive mercury contamination in the Building 81-10 area. Mercury has also been detected in groundwater monitoring wells in the area. Mercury is believed to be transported to UEFPC by stormwater surface runoff and leaching to groundwater.

### **Other Prioritization Factors:**

- Building 81-10 Area uncertainties include hydraulic connectivity of the 81-10 area to the creek; depth of mercury contamination; the volume of excavated soil that will exhibit a Resource Conservation and Recovery Act (RCRA) characteristic and require treatment prior to disposal; and the effectiveness of in-situ grouting.
- Upstream from the Building 81-10 Area, ongoing discharges from the West End Mercury Area (WEMA) at Y-12 are primary point source contributors to mercury flux in UEFPC. Remediation and D&D activities in the WEMA are currently a higher priority than remediation of the Building 81-10 Area. As IFDP plans progress, results of the planned treatability study will be evaluated and the Building 81-10 Area project scope and priority will be assessed and modified as necessary.

### **Overall Prioritization: Low**

There are a number of uncertainties associated with the Building 81-10 Area that impact the driver, cost, and preferred option for remediation. The planned treatability study will hopefully decrease these uncertainties. In order to address known point source contributors to mercury flux in UEFPC, IFDP currently plans to implement remediation and D&D projects in the WEMA prior to remediating the Building 81-10 area. The overall prioritization of the Building 81-10 Area project is **Low**.

*The information presented in this fact sheet is preliminary and will be refined during Critical Decision-2/3 development.*

<sup>1</sup> Record of Decision for Phase I Interim Source Control Actions in the Upper East Fork Poplar Creek Characterization Area, Oak Ridge, Tennessee, DOE/OR/01-1951&D3, DOE 2002

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For more information, please contact the DOE public affairs office at (865) 576-0885.

